

AMENDMENTS TO THE CLAIMS

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims in the application.

Claims 2-9 are amended.

1 1. (Previously Presented) A digital settop box for controlling a digital transport stream,
2 comprising:

3 a data receiving unit being connected to a digital subscriber line port and an Ethernet port,
4 said data receiving unit receiving signals from at least one selected from among an asynchronous
5 transfer mode network and an Internet protocol network, the signals corresponding to at least one
6 selected from among asynchronous transfer mode digital broadcasting, asynchronous transfer mode
7 video on demand, Internet protocol mode digital broadcasting, and Internet protocol video on
8 demand, said data receiving unit making an identification of the received signals by determining
9 when the received signals are asynchronous transfer mode data, when the received signals are
10 Internet protocol over asynchronous transfer mode data, and when the received signals are Internet
11 protocol data, said data receiving unit transmitting information corresponding to the received signals
12 in dependence upon the identification;

13 an extracting unit determining when the transmitted information corresponds to a portion of
14 a Moving Picture Experts Group transport stream and when the transmitted information corresponds
15 to Internet protocol packet data, said extracting unit extracting valid cells from asynchronous transfer
16 mode cells when the transmitted information includes asynchronous transfer mode cells;

17 a transport stream forming unit receiving the extracted valid cells, modifying the extracted
18 valid cells to form modified cells by removing a predetermined byte of head information and
19 overhead information from the extracted valid cells, and by forming one Moving Picture Experts
20 Group transport stream by re_assembling four modified cells;

21 a data transforming unit transforming the Moving Picture Experts Group transport stream
22 transmitted from said transport stream forming unit to be displayed by a video display; and

23 a processing unit reassembling asynchronous transfer mode cells, transmitting received data
24 to said data transforming unit.

1 2. (Currently Amended) The ~~apparatus~~ digital settop box of claim 1, with the Moving Picture
2 Experts Group transport stream corresponding to an asynchronous transfer mode Moving Picture
3 Experts Group transport stream.

1 3. (Currently Amended) The ~~apparatus~~ digital settop box of claim 1, with said data receiving
2 unit comprising:

3 a digital subscriber line receiving unit receiving the asynchronous transfer mode data and the
4 Internet protocol data through a digital subscriber line interface; and

5 an Ethernet receiving unit receiving the Internet protocol data through an Ethernet interface.

1 4. (Currently Amended) The ~~apparatus~~ digital settop box of claim 1, with said data
2 transforming unit comprising:

3 a decoding unit decoding the Moving Picture Experts Group transport stream transmitted
4 from said transport stream forming unit; and

5 an encoding unit encoding the Moving Picture Experts Group transport stream decoded by
6 said decoding unit to be displayed by the video display.

1 5. (Currently Amended) The ~~apparatus~~ digital settop box of claim 4, further comprising:

2 a processing unit receiving the Internet protocol over asynchronous transfer mode data from
3 said digital subscriber line receiving unit, said processing unit receiving the Internet protocol data
4 from said digital subscriber line receiving unit, said processing unit extracting valid cells from the
5 Internet protocol over asynchronous transfer mode data and the Internet protocol data received from
6 said digital subscriber line;

7 said processing unit receiving the Internet protocol data from said Ethernet receiving unit and
8 extracting valid cells from the Internet protocol data received from said Ethernet receiving unit.

1 6. (Currently Amended) The ~~apparatus~~ digital settop box of claim 5, further comprising:

2 a control unit determining when the valid cells extracted from the asynchronous transfer
3 mode cells by said extracting unit correspond to at least one selected from among the Moving Picture
4 Experts Group transport stream and general Internet data, determining when the valid cells extracted
5 from the Internet protocol over asynchronous transfer mode data by said processing unit correspond
6 to at least one selected from among the Moving Picture Experts Group transport stream and the
7 general Internet data, and determining when the valid cells extracted from the Internet protocol data

by said processing unit correspond to at least one selected from among the Moving Picture Experts Group transport stream and the general Internet data, said control unit re-assembling the cells in dependence upon the determining, said control unit transmitting the Moving Picture Experts Group transport stream to said decoding unit, and said control unit transmitting the general Internet data to said encoding unit.

7. (Currently Amended) The ~~apparatus~~digital settop box of claim 6, with the Moving Picture Experts Group transport stream corresponding to an asynchronous transfer mode Moving Picture Experts Group transport stream.

8. (Currently Amended) The ~~apparatus~~digital settop box of claim 7, with said data receiving unit comprising:

a digital subscriber line receiving unit receiving the asynchronous transfer mode data and the Internet protocol data through a digital subscriber line interface; and

an Ethernet receiving unit receiving the Internet protocol data through an Ethernet interface.

9. (Currently Amended) The ~~apparatus~~digital settop box of claim 1, further comprising: said processing unit receiving the Internet protocol over asynchronous transfer mode data from said digital subscriber line receiving unit, said processing unit receiving the Internet protocol data from said digital subscriber line receiving unit, said processing unit extracting valid cells from the Internet protocol over asynchronous transfer mode data and the Internet protocol data received

6 from said digital subscriber line;

7 said processing unit receiving the Internet protocol data from said Ethernet receiving unit and
8 extracting valid cells from the Internet protocol data received from said Ethernet receiving unit; and

9 said processing unit reassembling asynchronous transfer mode cells, transmitting received
10 data to said decoding unit of said data transforming unit when incoming data is Moving Picture
11 Experts Group stream, and transmitting and routing reassembled packets to said decoding unit of
12 said data transforming unit when incoming data is general Internet data.

1 10. (Previously Presented) An apparatus, comprising:

2 a data receiving unit being connected to at least two ports, said data receiving unit receiving
3 signals from at least one selected from among an asynchronous transfer mode network and an
4 Internet protocol network, the signals corresponding to at least one selected from among
5 asynchronous transfer mode digital broadcasting, asynchronous transfer mode video on demand,
6 Internet protocol mode digital broadcasting, and Internet protocol video on demand, said data
7 receiving unit identifying the received signals by determining when the received signals are
8 asynchronous transfer mode data, when the received signals are Internet protocol over asynchronous
9 transfer mode data, and determining when the received signals are Internet protocol data, said data
10 receiving unit transmitting information corresponding to the received signals in dependence upon
11 the identifying;

12 an extracting unit determining when the transmitted information corresponds to a portion of
13 a Moving Picture Experts Group transport stream and when the transmitted information corresponds

14 to Internet protocol packet data, said extracting unit extracting valid cells from asynchronous transfer
15 mode cells when the transmitted information includes asynchronous transfer mode cells; and
16 a transport stream forming unit receiving the extracted valid cells, modifying the extracted
17 valid cells to form modified cells, the modifying including removing predetermined information
18 from the extracted valid cells, forming the Moving Picture Experts Group transport stream by
19 reassembling the modified cells, and outputting video data to be transformed and then displayed by
20 a video display.

1 11. (Original) The apparatus of claim 10, the predetermined information including a
2 predetermined byte of head information and overhead information.

1 12. (Original) The apparatus of claim 10, with the at least two ports including a digital
2 subscriber line port and an Ethernet port.

1 13. (Original) The apparatus of claim 12, with said data receiving unit comprising:
2 a digital subscriber line receiving unit receiving the asynchronous transfer mode data and the
3 Internet protocol data through a digital subscriber line interface; and
4 an Ethernet receiving unit receiving the Internet protocol data through an Ethernet interface.

1 14. (Original) The apparatus of claim 13, further comprising:
2 a data transforming unit performing transforming after said transport stream forming unit

3 outputs the video data, said data transforming unit comprising:

4 a decoding unit decoding the Moving Picture Experts Group transport stream transmitted
5 from said transport stream forming unit; and

6 an encoding unit encoding the Moving Picture Experts Group transport stream decoded by
7 said decoding unit to be displayed by the video display.

1 15. (Original) The apparatus of claim 14, further comprising:

2 a processing unit receiving the Internet protocol over asynchronous transfer mode data from
3 said digital subscriber line receiving unit, said processing unit receiving the Internet protocol data
4 from said digital subscriber line receiving unit, said processing unit extracting valid cells from the
5 Internet protocol over asynchronous transfer mode data and the Internet protocol data received from
6 said digital subscriber line;

7 said processing unit receiving the Internet protocol data from said Ethernet receiving unit and
8 extracting valid cells from the Internet protocol data received from said Ethernet receiving unit.

1 16. (Original) The apparatus of claim 15, further comprising:

2 a control unit determining when the valid cells extracted from the asynchronous transfer
3 mode cells by said extracting unit correspond to at least one selected from among the Moving Picture
4 Experts Group stream and general Internet data, determining when the valid cells extracted from the
5 Internet protocol over asynchronous transfer mode data by said processing unit correspond to at least
6 one selected from among the Moving Picture Experts Group stream and the general Internet data,

7 and determining when the valid cells extracted from the Internet protocol data by said processing unit
8 correspond to at least one selected from among the Moving Picture Experts Group stream and the
9 general Internet data, said control unit re-assembling the cells in dependence upon the determining,
10 said control unit transmitting the Moving Picture Experts Group stream to said decoding unit, and
11 said control unit transmitting the general Internet data to said encoding unit.

1 17. (Original) The apparatus of claim 10, further comprising:
2 a data transforming unit performing transforming after said transport stream forming unit
3 outputs the video data, said data transforming unit comprising:
4 a decoding unit decoding the Moving Picture Experts Group transport stream transmitted
5 from said transport stream forming unit; and
6 an encoding unit encoding the Moving Picture Experts Group transport stream decoded by
7 said decoding unit to be displayed by the video display.